

South River Drainage District  
P.O. Box 957  
Hannibal, MO 63401

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November 18, 2014

U.S. Army Corps of Engineers  
Attn: CECW-CE (Lisa Kiefel)  
441 G Street NW.  
Washington, D.C. 20314-1000

RE: Section 7001 of the Water Resources Reform and Development Act of 2014  
Levee Improvement for the South River Drainage District

Dear Ms. Kiefel:

The South River Drainage District appreciates the opportunity to provide a Section 7001 Proposal in accordance with the Water Resources Reform and Development Act of 2014. The attached proposal describes our proposed levee modification project.

In short, our levee system was last improved in the 1960s in accordance with the 1954 Flood Control Act. We wish to improve our levee to the 100-year level of protection, adequate for Federal Emergency Management Agency (FEMA) Certification and to provide additional protection for our landowners. Our District has witnessed multiple high water events, even overtopping in 1993. The cost of flood fighting and levee rehabilitation has led to our need to permanently improve our levee system. The proposed improvement would potentially reduce these costs that are typically compensated by FEMA or through the PL84-99 USACE program.

An improvement to our levee system and surrounding levee systems (as recommended by the Mississippi River Commission in the Upper Mississippi Comprehensive Plan) would increase protection to human health, and strengthen the local, regional, and national economies. Our District alone has prevented approximately \$64 million in damages to infrastructure and agriculture since 1973. If combined with the other Districts studied in the Comp Plan, the importance to our national economy becomes apparent.

Our District is willing to take on the expense for this project, but wish to have federal approval before proceeding. Again, we appreciate being able to submit this proposal and look forward to working with you in the future.

As always, if you have any questions please do not hesitate to contact us.

Sincerely,

SOUTH RIVER DRAINAGE DISTRICT



David Bleigh, President

C: Senator Claire McCaskill  
Senator Roy Blunt  
Representative Sam Graves

Enclosure: Section 7001 Proposal for Levee Improvement, Location/Fact Map, Letters of Support

**Non-Federal Interest:** South River Drainage District is the project sponsor and sole project contributor. However, other local, non-federal interests have contributed to this project previously.

**Proposed Project:** The proposed project is a modification to an existing United States Army Corps of Engineers project, the South River Drainage District's levee. The levee was federally improved as a part of the 1954 Flood Control Act (House Document 281/83/2). The proposed project would improve the existing levee from an approximately 50-year design to a 100-year design. The 100-year design would include the adequate freeboard to attain FEMA certification, plus additional consideration due to uncertainties in climate change. This improvement would require additional sand and earthen material to raise the levee footprint. The levee would be improved on the landside, retaining its current riverside configuration. The project will include permitting work, assessment of environmental impacts, and right-of-way. This proposed improvement would be a frequency based design, meaning that if/when the flow, frequency profiles were to change the levee could be modified to retain its 100-year level of protection.

**Project Purpose:** The South River Drainage District (District) is located Marion County, along the west bank of the Mississippi River from River Mile 312 to 321. The South River Drainage District was established in 1903. The South River Drainage District was established to protect approximately 10,000 acres of agricultural land and aid in the reduction of waterborne disease. The original levees were improved as part of the 1954 Flood Control Act and the subsequent improvements of the 1950s and 1960s.

The District's original levee improvement was based upon pre-1950s methodologies and datasets. Since that time, new data has become available and the new flood trends that have been experienced. The current data indicates that at the nearest gauge, since 1944, the odds of a flood event occurring that exceeds major flood stage are approximately 1 in 4.8 (~14 events). If this dataset is condensed to the past 10 years the odds jump to 1 in 2.5 (~4 events).

The District flood fights during significant flood events by pushing up their sand levee and sandbagging where necessary. When the flooding subsides, Federal Emergency Management Agency (FEMA) funding is applied for to cover flood fighting expenses. If the flood fighting was unsuccessful and the levee overtopped, then the District would apply for funding from USACE under Public Law 84-99 for repairs. This cycle of flood fighting or overtopping followed by the application for funding has occurred many times since the improvements of the 1960s and at great federal and local expense. According to USACE MVR, the PL84-99 expenses for 2008 levee repairs were approximately \$250,000 (2008 costs). These damages do not include any FEMA or local expenses incurred for flood fighting, nor do they include damages to other infrastructure or farmland.

The South River Drainage District provides a significant economic benefit to its surrounding region. It has been estimated by USACE MVR that the District has prevented approximately \$63,578,700 in damages since 1973. The levee protects critical aspects of the local economy, and if lumped together with the other Districts that need improvements in this region, can sum to significant regional or even national economic impact.

The proposed project is within the recommendations of the Mississippi River Commission's (MRC) for the Upper Mississippi River Comprehensive Plan (UMRCP), dated August 14, 2008.

**Project Estimate:** Approximately \$10,100,000, which includes necessary permitting, engineering, and construction activities.

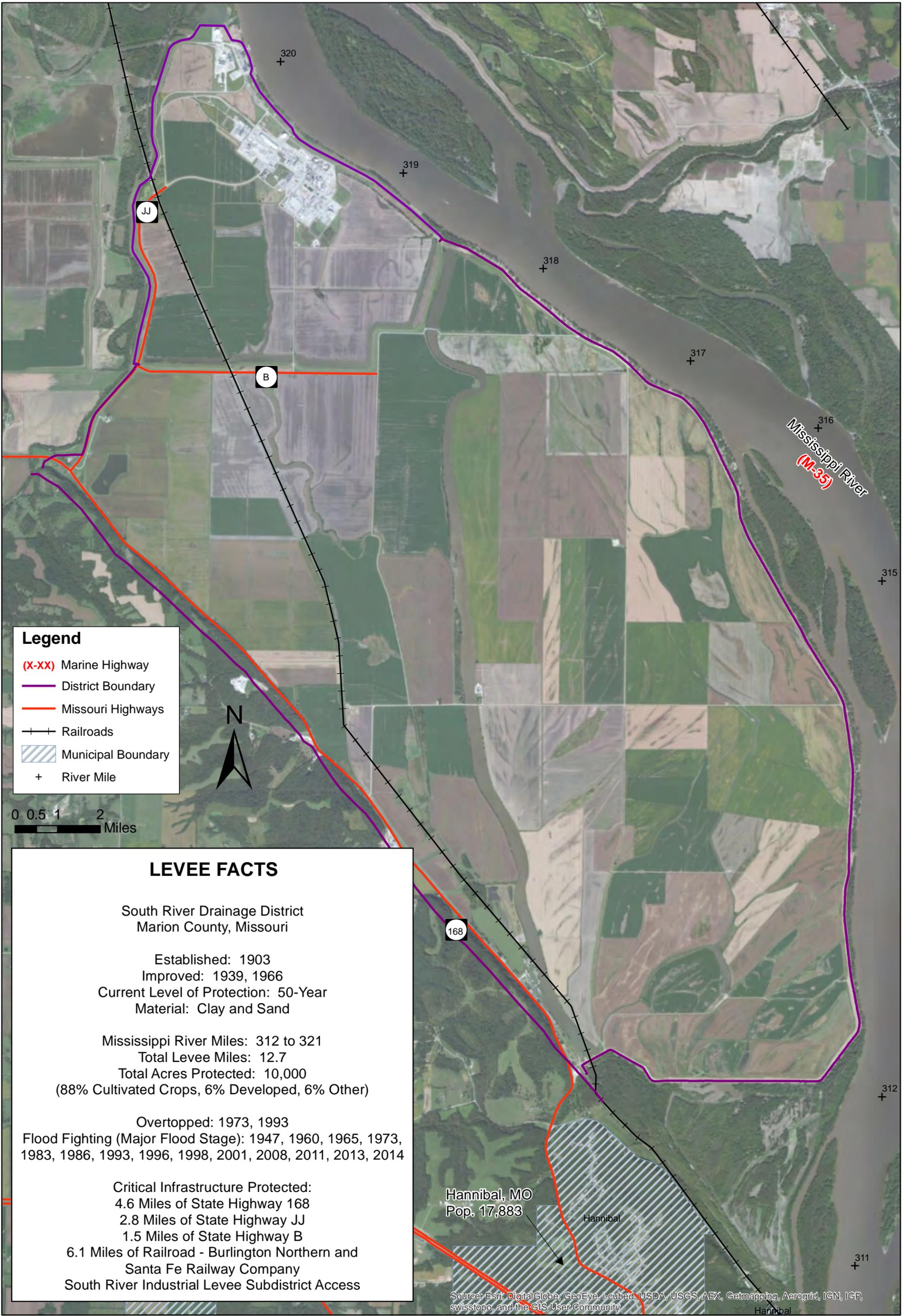
**Project Benefits:** The proposed project would protect approximately 8.9 miles of State Highways, 6.1 miles of railroads, approximately 10,000 acres of prime farmland, and residential structures. The proposed project would provide additional protection for human health and these roadways, railways, and agricultural property beyond the existing estimated annual damages prevented of approximately \$1.6 million (value estimated from USACE MVR calculations).

This District is a portion of the Upper Mississippi River Basin Levee System, which was found to provide direct or indirect protection to major roadway and railway bridges that cross the Mississippi or Illinois Rivers. A study entitled *Detour and Transportation Infrastructure Costs Due to a Major Flood Event on the Upper Mississippi and Illinois Rivers* by the Center for Transportation Research at the University of Tennessee found that the total costs of detour, road damage, and highway damage due to a major flood event was \$1.027 billion. This District provides a portion of this transportation benefit.

**Project Support:** The District's Board supports this project and other levee and drainage districts in the surrounding area are supportive and seeking their own improvements, in accordance with the UMRCP.

**Project Cost Share:** No federal cost share required. Project planned at 100% local sponsor cost. However, if funding is made available under the National Levee Safety Act (Title IX of WRDA 2007), the Comprehensive Plan (Section 459 of WRDA 1999), or other USACE funding, it would be of great assistance to improve public health and safety for the Upper Mississippi River.

**Project Letter of Support:** See attached letter from the District Commissioners and other letters of support.



**Legend**

- (X-XX) Marine Highway
- District Boundary
- Missouri Highways
- +— Railroads
- ▨ Municipal Boundary
- + River Mile



0 0.5 1 2 Miles

**LEVEE FACTS**

South River Drainage District  
Marion County, Missouri

Established: 1903  
Improved: 1939, 1966  
Current Level of Protection: 50-Year  
Material: Clay and Sand

Mississippi River Miles: 312 to 321  
Total Levee Miles: 12.7  
Total Acres Protected: 10,000  
(88% Cultivated Crops, 6% Developed, 6% Other)

Overtopped: 1973, 1993  
Flood Fighting (Major Flood Stage): 1947, 1960, 1965, 1973,  
1983, 1986, 1993, 1996, 1998, 2001, 2008, 2011, 2013, 2014

Critical Infrastructure Protected:  
4.6 Miles of State Highway 168  
2.8 Miles of State Highway JJ  
1.5 Miles of State Highway B  
6.1 Miles of Railroad - Burlington Northern and  
Santa Fe Railway Company  
South River Industrial Levee Subdistrict Access

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

|                  |               |                               |
|------------------|---------------|-------------------------------|
| GENERAL LOCATION | SHEET         | 1                             |
|                  | DRAWING DATE  | 11/17/2014                    |
|                  | PROJECT NO.   | 14-0913                       |
|                  | DRAWING TITLE | SOUTH RIVER DRAINAGE DISTRICT |

SOUTH RIVER DRAINAGE DISTRICT  
P.O. BOX 957  
HANNIBAL, MO 63401

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|------------------------|--------------|-----------|------------|---------|------------|-----|-------|----------------------|------|
| SCALE: 1 INCH = 1 MILE | DESIGNED WEK | DRAWN WEK | FIELD BOOK | CHECKED | CHECK DATE | NO. | APPR. | REVISION DESCRIPTION | DATE |
| FILE NAME              | XXX          |           |            |         |            |     |       |                      |      |

**KLINGNER & ASSOCIATES, P.C.**  
Engineers • Architects • Surveyors

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**LARRY WELCH**  
Eastern District Commissioner  
Hannibal, MO

**LYNDON BODE**  
Presiding Commissioner  
Hannibal, MO

**RANDY SPRATT**  
Western District Commissioner  
Palmyra, MO

# MARION COUNTY COMMISSION

Phone: 573-769-2549

**VALERIE DORNBERGER, COUNTY CLERK**  
Marion County Courthouse - 100 South Main Street, Suite 107  
Palmyra, Missouri 63461-1661

Fax: 573-769-4312

December 1, 2014

U.S. Army Corp of Engineers  
ATTN: CECW@-CE Lisa Keifel  
441 G Street NW  
Washington, DC 20314-1000

RE: Section 7001 of the Water Resources Reform and Development Act of 2014

Dear Ms. Kiefel,

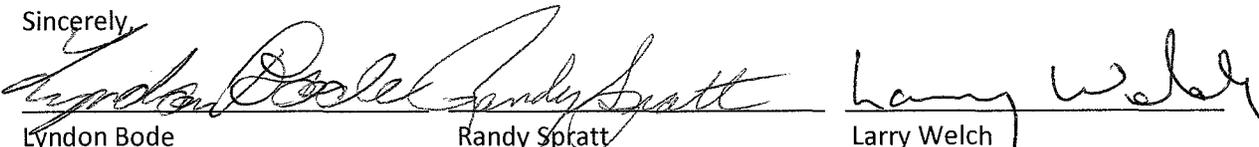
On behalf of Marion County, Missouri, the Marion County Commission is sending this letter of support of the South River Drainage District's proposal in accordance with the Water Resources Reform and Development Act of 2014.

Their levee system was overtopped in 1973 and 1993 and encroached upon in many other years. This proposal to improve their levee system to the 200 year level of protection will provide additional protection for area landowners, infrastructure and commercial/industrial businesses located in the area.

This improvement to area levee systems would provide protection to human health and safety. It would also strengthen our local and regional economy as well as the national economy by preventing crop destruction and detours and damage to the Avenue of the Saints, US 61 and US 24. The transportation impact alone amounted to 1.03 billion dollars over 20 years ago.

The South River Drainage District is willing to take on the expense for this project, but need to have federal approval so they can proceed. The Marion County Commissioner's hope is that you will consider this proposal that is so important to Marion County and the surrounding region.

Sincerely,

  
Lyndon Bode                      Randy Spratt                      Larry Welch  
Presiding Commissioner      Western Commissioner      Eastern Commissioner

**Meagan Kaiser**  
*Executive Director*

**Michael Klingner**  
*Chairman, Illinois*

**Vicki Stoller**  
*Vice Chairman, Iowa*

**Dianne Barnett**  
*Treasurer, Illinois*

**David McMurray**  
*Executive Committee, Iowa*

**John Winkelman**  
*Executive Committee, Missouri*

**Jason Hutcheson**  
*Director, Iowa*



*P.O. Box 418, Bowling Green, MO 63334  
573.489.9173*

**Joseph B. Gibbs, PE**  
*Director, Missouri*

**Philip Held**  
*Director, Missouri*

**Al Muhlenbruck**  
*Director, Iowa*

**Brent Hoerr**  
*Director, Missouri*

**Jim Koeller**  
*Director, Illinois*

**Roger Sutter**  
*Director, Missouri*

**Kevin Rund**  
*Director, Illinois*

December 1, 2014

U.S. Army Corps of Engineers  
Attn: CECW-CE (Lisa Keifel)  
441 G Street NW  
Washington, DC 20314-1000

RE: Section 7001 of the Water Resources Reform and Development Act of 2014

Dear Ms. Keifel,

Established in 1954, UMIMRA is a grassroots stakeholder organization advocating for a stronger Upper Mississippi Valley through flood control. Reliable flood control leads to a more reliable navigation channel, economic development, and a better way of life for the communities along the river. UMIMRA works closely with local, state, and federal legislators, the U.S. Army Corps of Engineers, and other agencies to ensure our members concerns are heard.

UMIMRA sends this letter of support for the South River Drainage District application. The District was established to protect 8,600 acres and aid in the reduction of waterborne illness. It has been estimated that the District has prevented approximately \$63,578,700 in damages since 1973.

The proposed project would protect approximately 8.9 miles of State Highways, 6.1 miles of railroads, approximately 8,600 acres of prime farmland, and residential structures. The proposed project would provide additional protection for human health and these roadways, railways, and businesses beyond the existing estimated annual damages prevented of approximately \$1.6 million.

Thank you for your consideration,

A handwritten signature in black ink that reads 'Meagan Kaiser'. The signature is written in a cursive, flowing style.

Meagan Kaiser, Executive Director  
Upper Mississippi, Illinois, & Missouri  
Rivers Association